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A-71673

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of: }
MICHAEL R. LAYTON, ET AL. }
Serial No. 10/633,368 }
Filed: July 31, 2003 }
For: SHOCK-RESISTANT ENCLOSURE }
Examiner: Amy Jo Sterling
Group Art Unit: 3632
June 16, 2008

APPLICANT'S REPLY BRIEF

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STATUS OF AMENDMENTS

No amendments have been filed since the action from which the appeal was taken.

The paper filed January 18, 2008 was a request for reconsideration, not an amendment.

ARGUMENT

Throughout her Answer, as she did in her final action, the Examiner has repeatedly mischaracterized what is shown in the references, pretending that elements are something other than what they are and that elements shown in one embodiment are also part of another, and she has repeatedly misstated or ignored the language of the claims. This reply addresses those errors and focuses on what is actually shown in the references and how the invention defined by the claims distinguishes over them.

Claims 1, 5, 7 - 9, 19 - 21, 23, and 32 - 35

The device shown in Bridges is a portable computer which has an enclosure consisting of a base section 12 and a top section 14 connected together by hinges 18. Resilient foot pads 24 are attached to the bottom wall 20 of the enclosure to limit sliding of the computer when placed on smooth surfaces and to provide "a nominal amount of cushioning" when placing the computer on a hard surface (Col. 3, lines 1 - 6). It also has a so-called "strike zone" (indicated by reference numeral 22 in Figure 2) that projects downwardly from the bottom wall to protect the computer from damage caused by inertial forces and deflection of the bottom wall when the computer is placed on a supporting surface (Col. 3, lines 49 - 58). The "strike zone" consists of a pair of bubble-like "protrusions" 22, 26 formed in bottom wall 20 and in a so-called "base wall" 28 within the lower section of the enclosure. The upper "protrusion" 26 is formed with a downwardly facing dimple or recess 32 in which the lower "protrusion" 22 is received when deflected by an impact (See Fig. 6 and Col. 3 line 59 to Col. 4, line 4). Bridges suggests that in other embodiments the lower "protrusion" 22 could be eliminated, in which case the upper "protrusion" 26 would extend through an opening in the bottom wall. When the computer is placed on desk top or other supporting surface, the lower section of the enclosure and, hence, the keyboard are held in an inclined position by (unnumbered) legs which the Examiner has labeled "Lugs".

From the arguments made in the Examiner's Answer, it appears that she now wants to count the support legs as shock absorbing elements along with the two elements of the "strike zone" and the resilient foot pads. Even so, Bridges fails to meet a key element of Claim 1, i.e., a plurality of shock absorbing elements projecting outwardly in different directions from the housing for receiving impacts which would otherwise strike the housing.

The foot pads, legs, and "strike zone" all extend from the enclosure in the same direction – down, and none of them would protect the computer from impacts on the top, front, rear, or sides of the enclosure.

As resourceful as it may be, the Examiner's argument that the legs extend laterally from the housing because they have a thickness is incorrect and unpersuasive. As clearly seen in Figures 1, the legs are disposed in recesses in the sides of the enclosure, and they do not protect outwardly from it in any direction but down.

The Examiner's argument that "both the housing (10) and a shock absorbing element (22) are made from polymeric material" fails to address the actual language of Claim 1 which reads "at least some of the shock absorbing elements being formed integrally with the housing and of the same rigid material as the housing." (Emphasis added).

The Examiner then makes the unnecessary and specious argument that two elements made from polymeric material qualify as being the same material just like two items made of metal can be said to be of the same material. Does she really think that a bar of gold and a bar of lead are of the same material? Just as clearly as lead and gold are not the same, different polymeric materials are not the same either.

Next, the Examiner argues that an element can still be a shock absorber even though it was not designed to be one, citing the eraser at the end of a pencil as an example. While that argument may apply to elements that are made of rubber or other resilient materials, it does not apply to rigid elements like legs of a computer.

The Examiner is likewise mistaken in arguing that a rigidly mounted fragile element is taught inherently by Bridges. While some of the components of the computer may be fragile elements, there is no indication that such elements are rigidly mounted to the enclosure, and the argument that the housing would not be able to protect the fragile elements if they were not rigidly mounted to the inside it is another specious one. Such elements could very well be mounted to the enclosure by an elastomer or other flexible material and, thus, be protected to some extent from impacts to the enclosure, as discussed in the background section of applicant's specification. The argument that the components would fall around inside the housing if they were not mounted to it once again overlooks the fact that they could be mounted to the enclosure with shock absorbing mounts.

The Examiner is also mistaken in defining "integral" as meaning "essential or necessary for completeness" and then arguing that shock absorbing element is a part of the larger unit and essential to completeness. While that might be a valid argument if the shock absorbing elements were claimed as being integral parts of the larger unit, it does not apply here where the shock absorbing elements are claimed as being formed integrally

with the housing. In the present context, integral means "formed as a unit with another part" (Webster's Seventh New Collegiate Dictionary, 1967, p. 439), and in order to meet the limitation of Claim 1, at least some of the shock absorbing elements in Bridges would have to be formed as an integral part of the enclosure or housing.

In calling for a housing formed of rigid material to which a fragile element is rigidly mounted, and a plurality of discrete shock absorbing elements projecting outwardly in different directions from the housing for receiving impacts which would otherwise strike the housing from the outside, with at least some of the shock absorbing elements being formed integrally with the housing and of the same rigid material as the housing, Claim 1 clearly distinguishes over Bridges.

Claims 7 - 9, 19 - 21, 23, and 32 - 35

Rather than addressing Claims 7 - 9, 19 - 21, 23, and 32 - 35 individually, the Examiner simply offers the circuitous, unsupported, bootstrap argument that "**all of the claim limitations are met because the rejection meets all of the claim limitations.**" Moreover, in making that ridiculous argument, she fails to realize that it is the reference and not the rejection that must meet the limitations of the claims in order to have anticipation.

With apparent reference to Claim 7, she argues that a mounting surface is not limited to contacting a surface unless specifically specified by the claim, and she concludes with nonsensical statement that "The rejection teaches a mounting surface in that it could be any surface." In so doing, she has once again failed to consider the language of the claim which specifies that "at least some of the shock absorbing elements extend beyond a mounting surface of the housing and are adapted to deflect so as not to prevent the mounting surface from making direct contact with a surface on which the enclosure is installed."

Although the Examiner has failed to indicate what she considers to be a mounting surface in Bridges, in the final action she does refer to "shock zone" protrusion 22 as being "shock absorbing elements [that] extend beyond a mounting surface of the housing". Since the only thing protrusion 22 extends beyond is the bottom wall 20 of the enclosure, that wall appears to be what she deems to be the mounting surface. However, bottom wall 20 does not make direct contact with a table top or surface on which the computer is placed. It is prevented from doing so by pads 24 which hold the wall above the table top by a distance h_1 . Moreover, the purpose of the "strike zone" is to prevent the bottom wall from impacting upon the table top, not to permit direct contact between a mounting surface and a surface on which the enclosure is installed.

With regard to Claim 8, the Examiner argues that Bridges teaches a mounting pad which projects from the housing and a shock absorbing fender spaced laterally from the

mounting pad, with a gap between the mounting pad and fender as set forth in the rejection. However, the only thing the rejection says about such elements is that the shock absorbers include "a generally circular mounting pad (32) which extends beyond a surface of the mounting pad and a generally c-shaped fender (22) . . . the pad and fender being laterally spaced with a gap between pad and fender . . ." In so doing, she has once again ignored the language of the claim which, in this case, defines the enclosure of Claim 1 as "further including" the mounting pad and fender. With the mounting pad and fender thus being claimed as additional elements, the Examiner cannot use the same elements for them that she used as shock absorbing elements in her rejection of Claim 1.

Moreover, element 32 is not a mounting pad. It is a recess or dimple in element 26 which is one of the so-called "protrusions" that make up the "strike zone". Nothing is mounted on element 32, and it does not mount the computer on anything else.

The rejection further departs from the language of the claim and also fails to make sense in stating that the mounting pad "extends beyond a surface of the mounting pad".

With regard to Claim 9, which specifies that the mounting pad and the fender are formed integrally with the housing, the Examiner once again relies upon her definition of integral as meaning "essential or necessary for completeness" but does not indicate how she would apply that definition to the claim. Here again, in the context of the claim and the disclosure on which the claim is based, integral means "formed as a unit with another part", and in order to meet Claim 9, element 32 would have to be formed as an integral part of bottom wall 20, which it clearly is not.

Moreover, since Claim 9 depends from Claim 8 where the mounting pad and fender are defined as being additional elements, recess 32 and protrusion 22 cannot be both the mounting pad and fender and the shock absorbing elements.

Independent Claim 19 is directed to a shock-resistant enclosure comprising a housing to which a fragile element is rigidly mounted, a mounting pad which projects from the housing, and a shock absorbing fender spaced laterally from the mounting pad, with a gap between the fender and the mounting pad, for receiving impacts which would otherwise strike the mounting pad. In defending her rejection, the Examiner once again argues that Bridges shows a "mounting pad (32) which extends beyond a surface of the mounting pad and a generally c-shaped fender (22) . . . the pad and fender being laterally spaced with a gap between pad and fender . . ." However, as pointed out above, element 32 is not a mounting pad. It is a recess or dimple in element 26 which is one of the so-called "protrusions" that make up the "strike zone". Nothing is mounted on it, and it does not mount the computer to anything else. Moreover, as also noted above, Bridges does not disclose a fragile element

rigidly mounted to a housing. Without those elements, Bridges does not anticipate, and the rejection is clearly erroneous.

With regard to Claim 21, which specifies that the fender includes a lug which extends beyond a surface of the mounting pad for receiving impacts which might otherwise strike the surface of the pad, the element labeled "Lugs" by the Examiner is not part of the element characterized by her as a fender (protrusion 22). It is one of the two legs that prop up the rear portion of the keyboard. It is a separate element attached to a different part of the enclosure.

In arguing that element 22 of Bridges is a fender, the Examiner has ignored the language of Claim 32 which specifies that the fenders extend around and are spaced from the corner portions of the housing. A bubble in the middle of the bottom wall is not a fender that extends around a corner portion of the enclosure. Even if it were, it still would meet the claim since it would be only one fender, whereas the claim calls for more than one ("at least some") such fender.

As with Claim 21, the element labeled "Lugs" by the Examiner is not part of the element characterized by her as a fender (protrusion 22), as specified by Claim 35. It is one of the two legs that prop up the rear portion of the keyboard. It is a separate element attached to an entirely different part of the enclosure.

Claims 10 – 12, 14, 17, and 18

In arguing that parts of the bumper/gasket assembly 40 shown in Figures 1 and 2 of Berberich et al. are also included in the embodiment of Figure 10, the Examiner is dead wrong, and her reference to Col. 9, lines 33 – 34 both inaccurate and misplaced. What Berberich et al. actually says is as follows:

Now turning to FIG. 10, a second preferred embodiment of a shock absorbing system for a disk drive 10 is shown. Of course the disk drive 10 will include many of the same internal components as the disk drive shown in FIGS. 1 and 2. As a result, the description of the second preferred embodiment will not include a description of all of the internal portions of the disk drive for the sake of brevity of this description. (Col. 9, lines 33 – 40).

This specifically says that the shock absorbing system shown in Figure 10 is a second embodiment, i.e. that it is not the one shown in Figures 1 and 2. Moreover, the components that are not included in the description of the second embodiment are the **internal** components or portions, not the shock absorbing system.

The shock absorbing system in the embodiment of Figure 10 includes a U-shaped frame 82 with elastomeric end caps 86 in recesses at the corners of the frame and elastomeric bumpers 80 pivotally mounted to the frame and projecting from the upper and

lower sides of the drive to prevent damage in the event of a flat drop. Additional elastomeric bumpers 88 are mounted in recesses in the side arms of frame 82 and are born against by the side arms of a connector shroud 84 in the event of an impact on the side of the shroud. The shroud is bonded to the frame to complete the shock absorbing system, and that system fills the peripheral space between base plate 12' and cover 14', with no room or need for the bumper 42, the gasket seal 44, or any other components of the bumper/gasket assembly 40 shown in Figures 1 and 2.

Claim 10 distinguishes over Berberich et al. in calling for a combined sealing gasket and shock absorbing structure formed integrally of an elastomeric material with a generally planar sealing portion disposed between the base and cover sections of the housing and a plurality of discrete shock absorbing elements extending outwardly from the sealing portion and projecting from different sides of the housing, with at least one of the elements projecting from the housing in a direction substantially perpendicular to the plane of the sealing portion.

The sealing assembly upon which the rejection is based (Figure 10) does not have a sealing gasket and shock absorbing structure formed integrally of an elastomeric material. Although Berberich et al. is silent as to the material of which frame 82 is made, it is obviously not an elastomeric material since elastomeric end caps 86 and elastomeric bumpers 88 are used with it for absorbing impacts. Moreover, the sealing assembly of Figure 10 does not have a generally planar sealing portion disposed between the base and cover sections of the housing and a plurality of discrete shock absorbing elements extending outwardly from the sealing portion and projecting from different sides of the housing. Without those elements, Berberich et al. does not anticipate, and the rejection is clearly erroneous.

In arguing that the embedded runners of Claim 12 are shown in Berberich et al., the Examiner has once again ignored the language of the claim and is now pretending that elements of the bumper/gasket assembly of shown in Figures 1 and 2 are present in the embodiment of Figure 10. Claim 12 depends from Claim 11 which specifies that the shock absorbing elements are connected to the sealing portion by runners which are embedded in the walls of the housing, and further specifies that the runners are embedded in recesses near the corners of the housing and held in place by cornerpieces retained by fasteners that also hold the base and cover sections of the housing together. There are no such runners in Berberich et al.

While elements 44 and 46' may be embedded between the walls, as argued by the Examiner, that is not what the claim calls for, i.e. shock absorbing elements connected to the sealing portion by runners which are embedded in the walls of the housing. Neither element 44 nor element 46' is either a shock absorbing element or a runner, and neither

is embedded in the walls of the housing. Element 44 is the sealing portion or gasket of the bumper/gasket in the embodiment of Figures 1 and 2, and element 46' is a locking tab that goes inside the sealed housing to prevent the bumper and seal from being pulled out of the housing.

Claims 24 and 25

Claim 24 defines the invention as a shock-resistant enclosure, comprising a housing to which a fragile element is rigidly mounted, and a plurality of leaf springs formed integrally with and extending outwardly from the housing for receiving impacts that would otherwise strike the housing. This structure is not found in Lelong et al.

Lelong et al. pertains to a hard disk drive cage having "keepers" or doors 21, 22 with leaf springs 38 that bear inwardly against the drive rails to hold the drives in place when the keepers are in their closed positions.

Initially, as discussed in applicant's Brief on Appeal but not addressed by the Examiner, there is no fragile element that is rigidly mounted to a housing in Lelong et al. While the disk drive may be a fragile element, it is not rigidly mounted. Instead, grommets are positioned between the hard drive and the cage in order to minimize any transmission of vibrations between the two (Paragraph 0060).

Lelong et al. likewise does not have leaf strings for receiving impacts that would otherwise strike the housing. In arguing that "the leaf springs clearly are extending from the housing which meets the structural limitations", the Examiner has once again ignored the claim actually calls for – "a plurality of leaf springs . . . extending outwardly from the housing". They extend inwardly and bear against the drive rails to hold the drives in place.

The Examiner's argument that a prior art structure meets the claim if it is capable of performing the "intended use" even if it was not intended for that purpose is misplaced because the inwardly extending leaf springs that bear against the drive rails are not capable of receiving impacts that would otherwise strike the housing.

Without either a housing to which a fragile element is rigidly mounted or leaf springs that extend outwardly from a housing for receiving impacts that would otherwise strike the housing, Lelong et al. does not anticipate, and the rejection is clearly erroneous.

Claims 2 and 22

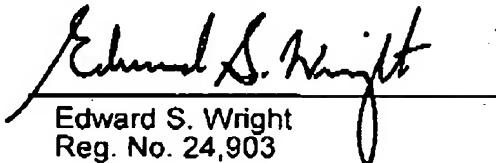
In her Answer, the Examiner has not even addressed or attempted to defend the rejections of Claims 2 and 22 on grounds of obviousness. Those claims depend from Claims 1 and 19 and are directed to patentable subject matter for the same reasons as their parent claims. Moreover, as discussed in applicant's Brief on Appeal, Claim 22 further distinguishes

in specifying that the housing, the mounting pad, and the fender are fabricated of a plastic material. As the Examiner has acknowledged, Bridges does not teach making the element characterized by her as a mounting pad (element 32) of plastic, and it actually teaches away from doing so. In that regard, it will be noted that the so-called "mounting pad" is a recess in a projecting portion 26 of a support member 30 that is attached to the plastic enclosure, and Bridges specifically says the support member is typically made of a metallic material such as sheet metal using a process such as metal stamping and forming (Col. 3, lines 17 - 19). There is no way of knowing if that element would deflect in the desired manner to absorb impacts if it were made of plastic, and there is no basis whatsoever for the suggestion in the final action that the substitution of plastic for metal would have a predictable result.

SUMMARY AND CONCLUSION

It is once again respectfully submitted that the rejections which the Examiner has made cannot be sustained and that the action of the Examiner should be reversed.

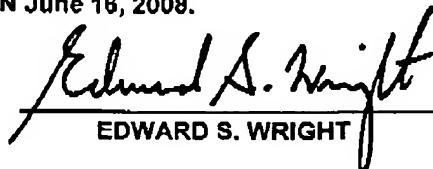
Respectfully submitted,


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EDWARD S. WRIGHT